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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/888,652	06/26/2001	Doo Hyun Ko	8733.476.00	9120

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EXAMINER

CHOWDHURY, TARIFUR RASHID

ART UNIT PAPER NUMBER

2871

DATE MAILED: 01/23/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/888,652

Applicant(s)

KO ET AL.

Examiner

Tarifur R Chowdhury

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 June 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 7-13 and 22-26 is/are allowed.
- 6) ☒ Claim(s) 1,3-6,14-18 and 21 is/are rejected.
- 7) ☒ Claim(s) 2,19 and 20 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 June 2001 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in-

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or

(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

3. **Claims 1, 3-6, 14-18 and 21 are rejected under 35 U.S.C. 102(e) as being anticipated by Kim et al., (Kim), US 2001/0019388.**

4. Kim discloses and shows in Fig. 4A and 6A, a multi-domain liquid crystal display device, comprising:

- first and second substrates (33, 31);
- a pixel electrode (13) formed on the second substrate (31);
- a first side electrode (15) formed along a periphery of the pixel electrode (13);
- a second side electrode (25) formed diagonally on the pixel electrode (13) (Fig. 6A); and
- first and second dielectric frames (53) formed on the first substrate (33).

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Accordingly, claim 1 is anticipated.

As to claim 3, Kim shows in Fig. 4A that an insulating film (35) formed on the first and second side electrodes, the pixel electrode (13) being formed on the insulating film (35).

As to claim 4, Kim shows in Fig. 4A that the first and second dielectric frames (53) are formed on the first substrate (33) to correspond to sides of the second side electrode (25).

As to claim 5, Kim also shows in Fig. 6A that the first and second dielectric frames (53) are formed in the same direction as the second side electrode (25);

As to claim 6, Fig. 4A of Kim also shows that the pixel electrode (13) has open regions above the second side electrode (25).

As to claim 14, Kim also discloses that the multi-domain liquid crystal display also comprising:

- data lines on the first substrate;
- gate lines on the first substrate and perpendicular the data lines, the data and gate lines defining a pixel region having at least two liquid crystal domains in the pixel region.

As to claim 15, Kim shows in Fig. 6A that the pixel electrode (13) has slits (53) in a region corresponding to the second side electrode (25).

As to claim 16, Kim also shows in Fig. 6A and discloses that the first side electrode (15) includes parallel first side electrodes that are parallel to the data lines and

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transverse first side electrodes that cross the pixel region and are perpendicular to the data lines.

As to claim 17, Kim also shows in Fig. 6A that the parallel first side electrodes extend from respective ones of the transverse first side electrodes to respective ones of the at least one dielectric structure (53).

As to claim 18, Kim shows in Fig. 6A that the second side electrode (25) transverses the pixel electrode (13) diagonally.

As to claim 21, Kim shows in Fig. 6A that the first side electrode (15) partially surrounds the pixel electrode (13).

Allowable Subject Matter

5. Claims 7-13 and 22-26 are allowed.

6. Claims 2, 19 and 20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. The following is a statement of reasons for the indication of allowable subject matter:

The prior arts of record do not anticipate nor render obvious to one ordinary skilled in the art a multi-domain liquid crystal display comprising various elements as claimed, more specifically the first side electrode being electrically connected to the second side electrode.

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US 2001/0019388 discloses a multi-domain liquid crystal display device wherein the first side electrode and the second side electrode are not electrically connected.

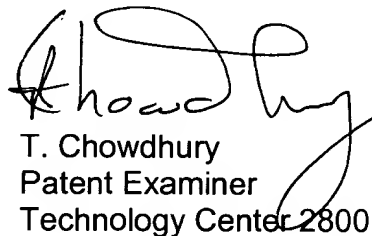
Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tarifur R Chowdhury whose telephone number is (703) 308-4115. The examiner can normally be reached on M-Th (6:30-5:00) Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William L Sikes can be reached on (703) 305-4842. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 746-7005 for regular communications and (703) 308-7724 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1782.


T. Chowdhury
Patent Examiner
Technology Center 2800

TRC
January 15, 2003